UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.usplo.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

31780 7590 11/26/2010 Robinson Intellectual Property Law Office, P.C. 3975 Fair Ridge Drive Suite 20 North

Fairfax, VA 22033

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/721,075 | I I/26/2003 | Koichiro Tanaka | 0756-7223 | 7829 |

TITLE OF INVENTION: LASER IRRADIATION APPARATUS, LASER IRRADIATION METHOD, AND METHOD FOR MANUFACTURING A SEMICONDUCTOR DEVICE

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | NO | \$1510 | \$300 | \$0 | \$1810 | 02/28/2011 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT, PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as

| indicated unless correct maintenance fee notifica | ed below or directed of | herwise in Block 1, by (| a) specifying a new corre | spondence address; | and/or (b) in | dicating a separ | ate "FEE ADDRESS" for |
|--|---|--|---|--|--|--|---|
| CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address) | | | Not Fee pap hav | e: A certificate of r (s) Transmittal. This ers. Each additional e its own certificate | nailing can o certificate ca paper, such a of mailing or | nly be used for unnot be used fo us an assignmen transmission. | domestic mailings of the r any other accompanying t or formal drawing, must |
| 31780 | | 5/2010 | | Cert | ificate of Ma | iling or Transm | nission |
| 3975 Fair Ridge Suite 20 North | | aw Office, P.C. | I he Stai add tran | reby certify that thi les Postal Service w ressed to the Mail ismitted to the USPI | s Fee(s) Trans ith sufficient Stop ISSUE O (57I) 273- | smittal is being postage for first FEE address a 2885, on the da | deposited with the United class mail in an envelope above, or being facsimile te indicated below. |
| Fairfax, VA 220 | 133 | | | | | | (Depositor's name) |
| | | | | | | | (Signature) |
| | | | L | | | | (Date) |
| APPLICATION NO. | FILING DATE | | FIRST NAMED INVENTOR | | ATTORNEY I | OOCKET NO. | CONFIRMATION NO. |
| 10/721,075 | 11/26/2003 | | Koichiro Tanaka | | 0756- | 7223 | 7829 |
| TITLE OF INVENTION SEMICONDUCTOR DE | | ION APPARATUS, LA | SER IRRADIATION ME | THOD, AND MET | THOD FOR I | MANUFACTUI | RING A |
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| nonprovisional | NO | \$1510 | \$300 | \$0 | | \$1810 | 02/28/2011 |
| EXAM | IINER | ART UNIT CLASS-SU | | | | | |
| ELVE, MARIA | | 3742 | 219-121760 | | | | |
| 1. Change of correspondence address or indication of "Fee Address" (3: CFR 1.5d). Change of correspondence address (or Change of Correspondence Address form FTO/SH 22) attached. J "Fee Address" indication or "Fee Address" Indication form FTO/SH47; Rev 03-02 or more recent) attached. Use of a Custome Number is required. | | | 2. For printing on the pasted front page, list (1) the names of up to 3 registered patent attorneys c agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name wilb pertitact. | | | | |
| PLEASE NOTE: Un recordation as set for (A) NAME OF ASSI | less an assignee is ident th in 37 CFR 3.11. Comp GNEE | ified below, no assignee pletion of this form is NO | THE PATENT (print or ty data will appear on the p T a substitute for filing an (B) RESIDENCE: (CITY | atent. If an assigne assignment. Y and STATE OR C | OUNTRY) | | |
| Please check the appropr | rate assignee category or | r categories (will not be p | rinted on the patent): | Individual — Co | rporation or o | ther private grou | ap entity Government |
| 4a. The following fee(s) Issue Fee | are submitted: | 4 | b. Payment of Fee(s): (Pleaning A check is enclosed. | ase first reapply an | y previously | paid issue fee sl | hown above) |
| □ Publication Fee (No small entity discount permitted) □ Payment by credit card. Form PTO-2038 is attached. □ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any | | | | | | | |
| Advance Order - | # of Copies | | overpayment, to Depo | y authorized to chargosit Account Numbe | ge the required | (enclose an | extra copy of this form). |
| 5. Change in Entity Sta | itus (from status indicate as SMALL ENTITY stati | | b. Applicant is no lon | ger claiming SMAL | L ENTITY st | atus. Sec 37 CF | R 1.27(g)(2). |
| NOTE: The Issue Fee an interest as shown by the | d Publication Fee (if req records of the United Sta | uired) will not be accepte ites Patent and Trademark | d from anyone other than to Office. | the applicant; a regis | tered attorney | or agent; or the | assignee or other party in |
| Authorized Signature | | | | Date | | | |
| Typed or printed name | | | | Registration N | D | | |
| This collection of inform an application. Confiden submitting the complete this form and/or suggest Box 1450, Alexandria, V Alexandria, Virginia 223 | nation is required by 37 C tiality is governed by 35 d application form to the ions for reducing this bu /irginia 22313-1450. DC 313-1450. | CFR 1.311. The information U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the DNOT SEND FEES OR | on is required to obtain or 1.14. This collection is es r depending upon the indi e Chief Information Offic COMPLETED FORMS T | retain a benefit by the timated to take 12 no vidual case. Any con er, U.S. Patent and 7 O THIS ADDRESS. | ne public which inutes to com- mments on the Frademark Of SEND TO: O | th is to file (and applete, including e amount of tim fice, U.S. Depar Commissioner fo | by the USPTO to process) gathering, preparing, and to you require to complete timent of Commerce, P.O. or Patents, P.O. Box 1450, |

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PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

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| 31780 | 7590 11/26/2010 | | EXAM | UNER | |
| Robinson Intellectual Property Law Office, P.C. | | | ELVE, MARIA ALEXANDRA | | |
| 3975 Fair Ridge Drive | | | ART UNIT | PAPER NUMBER | |
| Suite 20 North Fairfax, VA 2203 | 33 | | 3742 DATE MAII ED: 11/26/201 | 0 | |

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 106 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 106 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

| Application No. | Applicant(s) |
|------------------|------------------|
| 10/721,075 | TANAKA, KOICHIRO |
| Examiner | Art Unit |
| M Alaxandra Elva | 37/12 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable. PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- This communication is responsive to 8/3/10.
- The allowed claim(s) is/are 1,2,4-11,13-20,22-29,31-38,40-47 and 49-54.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - b) ☐ Some* c) ☐ None of the: a) 🔯 All
 - 1. A Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No.
 - 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6.

DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. | Notice of References Cited (PTO-892)
- 2. Notice of Draftperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statements (PTO/SB/08).
- 4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- Paper No./Mail Date
- Interview Summary (PTO-413), Paper No./Mail Date
- 7.

 Examiner's Amendment/Comment

5. Notice of Informal Patent Application

- 8. X Examiner's Statement of Reasons for Allowance
- 9. ☐ Other .

November 21, 2010.

U.S. Patent and Trademark Office PTOL-37 (Rev. 08-06)

/M. Alexandra Elve/

Primary Examiner, Art Unit 3742

Art Unit: 3742

REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance: the prior art does not teach a pulsed laser oscillator and a continuous wave oscillator in which a portion of the beam spot of the first laser beam and an entire portion of the respective beam spots of the second laser beams are overlapped with each other.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Alexandra Elve whose telephone number is 571-272-1173. The examiner can normally be reached on 7:30-4:00 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu B. Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 10/721,075 Page 3

Art Unit: 3742

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

November 21, 2010.

/M. Alexandra Elve/ Primary Examiner, Art Unit 3742